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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/873,449	06/05/2001	John Fan	1020P15418	4407
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KACVINSKY LLC C/O INTELLEVATE P.O. BOX 52050 MINNEAPOLIS, MN 55402			EXAMINER ZEWDU, MELESS NMN	
			ART UNIT 2617	PAPER NUMBER
			MAIL DATE 11/08/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/873,449	Applicant(s) FAN, JOHN	
	Examiner Meless N. Zewdu	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) 12, 17-19, 21, 22, 31, 32, 36-38 and 40-45 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 13-16, 20, 23-30, 33-35 and 39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This action is in response to the communication filed on 7/18/07.
2. Applicant has withdrawn claims 12, 17-19, 21-22, 31-32, 36-38 and 40-45.
3. Claims 1-11, 13-16, 20, 23-30, 33-35 and 39 are pending in this action.

Remarks: examiner suggests applicant to cancel the claims labeled as “withdrawn” since there was no an election/restriction requirement made by the Office.

Claim Objections

Claims 1, 11, 20, 30 and 39 are objected to because of the following informalities: the claims use a “**subscriber unit**” and a “**mobile communication device**” in the alternative, which is found to be inconsistent and confusing. Appropriate correction is required.

Claim 11 is objected to because of the following informalities: “select” in line 3, should be changed into “selected”. Appropriate correction is required.

Claim 11 is objected to because of the following informalities: “any other” in line 8 should be changed into “each other”. Appropriate correction is required.

Claim 30 is objected to because of the following informalities: “**any other**” in line 7 should be change into “one another”. Appropriate correction is required.

Claim 30 is objected to because of the following informalities: "the communication device" on line 5 is suggested to be changed into "the mobile communication device". Appropriate correction is required.

Claim 39 objected to because of the following informalities: "at the device" on line 10, is suggested to be changed into "at the mobile communication device". Appropriate correction is required.

Claim 39 is objected to because of the following informalities: "any other antennae" in lines 13-14 should be changed into "any other antennae within the said single antennae structure". Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 20 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In this case, "a remote receiver" is not defined in the specification in a manner recited in claim 20 (emphasis added). Similarly, claim 1

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recites "a remote transmitter" on line 11, and claim 11 recites "a remote receiver" on line 13.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 recites the limitation "the base transceiver station" in line 5. There is insufficient antecedent basis for this limitation in the claim.

Claim 11 recites the limitation "**the base transceiver station**" in line 10. There is insufficient antecedent basis for this limitation in the claim.

Claim 11 recites the limitation "**the subscriber unit**" in line 11. There is insufficient antecedent basis for this limitation in the claim.

Claim 11 recites the limitation "the selected data streams" in lines 10-11. There is insufficient antecedent basis for this limitation in the claim.

Claim 20 recites the limitation "the base transceiver station" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 30 recites the limitation "**the base transceiver station**" in line 10. There is insufficient antecedent basis for this limitation in the claim.

Claim 30 recites the limitation "**the selected data**" in line 11. There is insufficient antecedent basis for this limitation in the claim.

Claim 30 recites the limitation "**the subscriber unit**" in line 11. There is insufficient antecedent basis for this limitation in the claim.

Claim 39 recites the limitation "the base station" in 4. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 11, 13-15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andrews et al. (Andrews) (6,646,615) in view of Airy et al. (Airy) (US 6,400,699 B1).

As per claim 11: Andrews discloses a method for transmitting data from a mobile communications device (see fig. 3), the method comprising:

a multiple access protocol (see col. 8, lines 35-67) via selected ones of (see claims 11 and 12) and a plurality (N) of electric dipole antennae co-located at the mobile communication device as a single antenna structure, each antenna characterized by a distinct polarization with respect to any other to generate at least N uncorrelated spatial streams of channel diversity from the single antenna structure (see figs. 1-2; col. 4, lines 9-44; col. 4, line 63-col. 5, line 13). But, Andrews does not explicitly teach about transmitting data streams on an assigned channel and generating control signals to

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configure a base transceiver station to receive selected data streams from the subscriber unit on the assigned channel of a multiple access protocol, as claimed by applicant. However, in the same field of endeavor, Airy teaches about transmission scheduler for a multiple antenna wireless cellular network (see title), wherein data streams are transmitted between a base station and at least one mobile station in both downlink and uplink directions (see col. 7, lines 58-63; col. 8, lines 7-15). Note: "antenna selection" is obvious from the scheduler's function, i.e., scheduling uplink and downlink data/information. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the teaching of Andrews' with that of Airy's for the advantage of providing scheduling for transmission of data blocks (data streams) between a base station and subscriber unit(s).

As per claim 13: Andrews teach about a method wherein the electric dipole antennae comprise 3 electric dipole antennae (see fig. 2; col. 4, lines 9-43; col. 4, line 44-col.5, lines 57).

As per claim 14: Andrews teaches about a method wherein the 3 electric antennae have 3 different polarizations (see col. 4, line 44-col. 13; col. 7, lines 10-25; col. 9, lines 1-28).

As per claim 15: Andrews teaches about a method wherein the data streams are transmitted via scattering channels (see abstract).

As per claim 16: a method, wherein the mobile communications device comprises a palm- sized device (see col. 9, lines 20-28).

Allowable Subject Matter

Claims 1, 20, 30 and 39 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Meless N. Zewdu whose telephone number is (571) 272-7873. The examiner can normally be reached on 8:30 am to 5:00 pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Appiah Charles can be reached on (571) 272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Any inquiry of a general nature relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600.

Meless Zewdu

A handwritten signature in black ink, appearing to read 'Zewdu, Meless', written in a cursive style.

Patent examiner

04 November 2007.